Pseudoaneurysm of the cystic artery: An uncommon cause of upper gastrointestinal bleeding in a case of xanthogranulomatous cholecystitis

Carmen Muñoz-Villafranca1, Íñigo García-Kamirruaga1, Pilar Gómez-García2, Víctor Atín-del-Campo2, Victoria Bárcena-Robredo3, Alexander Aguinaga-Alesanco4 and Ángel Calderón-García1

Departments of 1Gastroenterology, 2Surgery and 3Diagnostic Radiology. Hospital Universitario de Basurto. Bilbao, Vizcaya. Spain. 4Department of Diagnostic Radiology. Hospital Universitario de Cruces. Baracaldo, Vizcaya. Spain

Pseudoaneurysm of the cystic artery is a very rare entity; only a few cases have been reported in the literature (1).

We present the case of a 74-year-old male admitted for pain in the right lower quadrant of the abdomen. The emergency abdominal CT scan showed abnormal structural findings in the gallbladder, with hypodense area, cholelithiasis, and involvement of the fat around the gallbladder. The findings suggesting xanthogranulomatous cholecystitis were confirmed by needle aspiration cytology. His course was unsatisfactory and, on day 14, he had an episode of pain in the upper gastrointestinal tract and melena. The suspicion of haemobilia was confirmed by endoscopy. In the lower part of the ampulla of the duodenum, we identified a leaky hole into a cylindrical cavity and observed branching compatible with the biliary tree (Fig. 2).

Magnetic resonance imaging showed a 1.8 cm lesion compatible with a pseudoaneurysm of the cystic artery (Fig. 3). Given the severity of the bleeding, selective embolisation of the cystic artery was performed on an emergency basis, by selective catheterisation of the hepatic artery and supraselective catheterisation

Fig. 1. Contrast-enhanced multidetector computed tomography image. Gallbladder not clearly defined, bed filled with a hypodense areas and fat involvement. Nodular accumulation of contrast medium inside the gallbladder, compatible with a pseudoaneurysm of the cystic artery.

Fig. 2. Gastroscopy. A hole leaking blood was observed, in the lower part of the ampulla of the duodenum, close to the superior duodenal flexure. Passing through the hole, we observed a cylindrical cavity with necrotic walls and branching resembling the biliary tree.

Fig. 3. Axial T2-weighted half-Fourier acquisition single-shot turbo spin-echo MRI. Accumulation of the contrast media in the ampulla of the duodenum associated with an enterobiliary fistula. Diffuse thickening of the gallbladder, suggestive of xanthogranulomatous cholecystitis. A 1.8 cm diameter, rounded lesion in the lumen of the gallbladder, compatible with a pseudoaneurysm of the cystic artery (arrow).
of the cystic artery. We used 500 to 700 µm Contour Micro-
spheres and three coils (Fig. 4), and succeeded in stopping the
haemorrhage immediately.

Despite the high incidence of biliary diseases in our setting,
there are very few cases of digestive haemorrhage due to hae-
mobilia (2). Although the origin of the pseudoaneurysm is not
clear, it seems that erosion of the artery wall, due to inflam-
matory processes associated with cholecystitis, could have led
its formation (3). As for the treatment of choice, most authors
recommend arteriography with selective embolisation by inter-
ventional radiology (4).

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